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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LOPEZ, CARLOS N

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 03/12/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/763,235

Applicant(s)

NEMUGAKI ET AL.

Examiner

Carlos Lopez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 11-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION***Election/Restrictions***

Applicant's election with traverse of group II claims 6-10 in Paper No. 9 is acknowledged. The traversal is on the ground(s) that the search for claims 6-10 would include a search to the rest of the claims 1-5 and 11-13 drawn to air cooling device. This is not found persuasive because the search of claims 1-5 and 11-13 would be drawn to an air-cooling /tempering device which does not require a search for a method of air-cooling/ tempering of a **glass plate** drawn to claims 6-10. Claims 1-5, 11-13 are classified in class 165, Heat exchange, while claims 6-10 is drawn to a method of air-cooling/tempering a glass plate classified in Class 65. Hence, because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, search required for claims 6-10 is not required for claims 1-5, 11-13. Furthermore, restriction was made under PCT Rule 13.1 and thus traversal of the restricted claims should be based and follow PCT guidelines. Thus restriction for examination purposes is deemed proper and is therefore made FINAL.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 96b as recited in page 25 line 1 of the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: element 138B in Fig. 6 and element 70B and 70C in Fig. 6. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim 6 objected to because of the following informalities: typing error at line 27. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1) Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following terms lack antecedent basis that renders the claims indefinite:

In claim 6 at line 7 "the air-blowing area", at line 10 "the blowing of air", at line 12 "the beginning" and "the transfer", and at line 15 and 19 "the transfer" and "the entirety".

In claim 8, at line 23 "the order" and at line 25 "the all divided".

In claim 9, at line 8 "the area".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Letemps et al (US 4,957,528) in view of Prior Art Teaching (PAT) on page 4 line 21 through page 6 line 27. Letemps discloses a method tempering a glass plate by having air-blowing heads (16 & 102) at the upper and lower face of the glass plate (Figure 1). The glass plate is transferred using transferring means (rollers 4 & 101) to form a transferring path wherein the path includes a first air-blowing heads (16) at the upstream portion of the transferring path and second air-blowing heads (102) at the downstream portion of the transferring path (Figure 1). Letemps is silent teaching stopping the upstream air-blowing areas from operating as the glass plate is transferred into the upstream portion of the transferring path nor does it teach of stopping the air-blowing heads once the glass plate passes the upstream portion wherein the air-blowing heads (16) of Letemps are located. However, PAT teaches that the air blowing heads are started once an entire first glass plate is in the air blowing area formed by air-blowing heads, which corresponds to the same upstream air blowing area of Letemps formed by the upstream air-blowing heads (16), in order to provide a uniform and tempered glass plate. Thus in view of PAT, at the time the invention was made it would have been obvious to one of ordinary skill in the art to have stopped the air-blowing

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heads (16) once the glass plate passes the upstream path in order to allow a second glass plate to be tempered in a uniform manner as taught by PAT.

As for claim 7-8, first air-blowing heads at the upstream portion of the transferring path formed by air-blowing heads (16) and second air-blowing heads (102) at the downstream portion of the transferring path provides a plurality of air-blowing areas along the transferring direction wherein the air-blowing heads 102 would be stopped to allow the glass plate to be entirely within the blowing area of air-blowing heads 102 and thus be tempered uniformly by the air-blowing heads 102 in the same manner for which the glass is tempered by the air blowing heads 16 in the upstream path as taught by Applicant's admission in order to provide a uniform tempering of the glass plate.

As for claim 9, in order to provide a uniform tempering of the glass plate, air would only be blown only where the glass plate is in its entirety positioned under the air blowing areas of the upstream and downstream air blowing heads 16 or 102 respectively. For example the glass plate would have air blowing from air-blowing heads 16 when the entire glass plate is in the air blowing area of upstream air blows. The glass plate is then transferred to a air blowing heads 102 which would be stopped and then started once the entire glass plate is in the air blowing area of air blowing heads 102 in order to provide a uniform tempering of the glass as taught by Applicant's admission.

3) Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Letemps et al (US 4,957,528) in view of Applicant's Admission as applied to claims 6 above, and further in view of Takeda (US 6,397,634) and Abe (US 4,343,645). Letemps and

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Applicants admission fail to disclose or reasonably suggest providing (rollers 101 and 4) and air-blowing heads (102,16) movable in a vertical direction in other to conform to varying curvatures of the glass plate. However, as taught by Takeda providing rollers movable in a vertical direction provides transferring means for glass plates of varying curvatures of plates without exchanging the transferring rollers to a type which is specific dependant on the curvature of the glass plate (Abstract). Additionally as taught by Abe, providing air-blowing heads adjustable in a vertical direction provides for the tempering of glass plates having varying curvatures (Column 2, lines 34-48). At the time the invention was made it would have been obvious to a person of ordinary skill in the art to have modified Letemps rollers and air blowing heads to be vertically adjustable as taught by Takeda and Abe respectively in order to provide tempering to glass plates having varying curvatures.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References D-L in PTO-892 are cited to show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is (703) 605-1174. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.


STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

C.L
March 7, 2003